## Claims

1. A pipe separator for separation of fluids, for example separation of oil, gas and water in connection with the extraction and production of oil and gas from formations under the sea bed, comprising an extended, tubular separator body (1) that has a diameter at the inlet and outlet ends that is mainly equal to or slightly greater than the diameter of the transport pipe to which the separator body is connected, a separator device, expediently a cyclone (3), arranged upstream of the separator body for separation of any gas present and an electrostatic coalescer (4) arranged in connection with the pipe separator,

characterised in that

the electrostatic coalescer (4) is incorporated in and constitutes an integrated part of the separator body.

15 2. A pipe separator in accordance with claim 1,

characterised in that

a water seal (6) is arranged downstream of the separator element (1) and a device (7) is arranged in connection with the water seal for drainage of the water that is separated out in the separator element (1).

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3. A pipe separator in accordance with claims 1 and 2,

characterised in that

the separator element (1) comprises two or more coalescers arranged in series.

4. A pipe separator in accordance with claims 1-2,

characterised in that

the cyclone (3) is arranged in connection with a throttle valve that produces high shear for the fluid.

30 5. A pipe separator in accordance with claims 1-2,

characterised in that

the cyclone (3) is arranged in close proximity to the inlet of the separator element (1).